

INDIANA'S HEALTH WORKFORCE: DESCRIPTION, DISTRIBUTION, AND STRATEGIC RECOMMENDATION TO EMPOWERED DECISION MAKING

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PRESENTATION OBJECTIVES

- ▶ Review factors driving supply and demand for health care in Indiana
 - ▶ Describe the urban/rural characteristics of Indiana's current health care workforce
 - ▶ Discuss data as a key to decision making regarding Indiana's health workforce
 - ▶ Present conceptual model for centralized health workforce data
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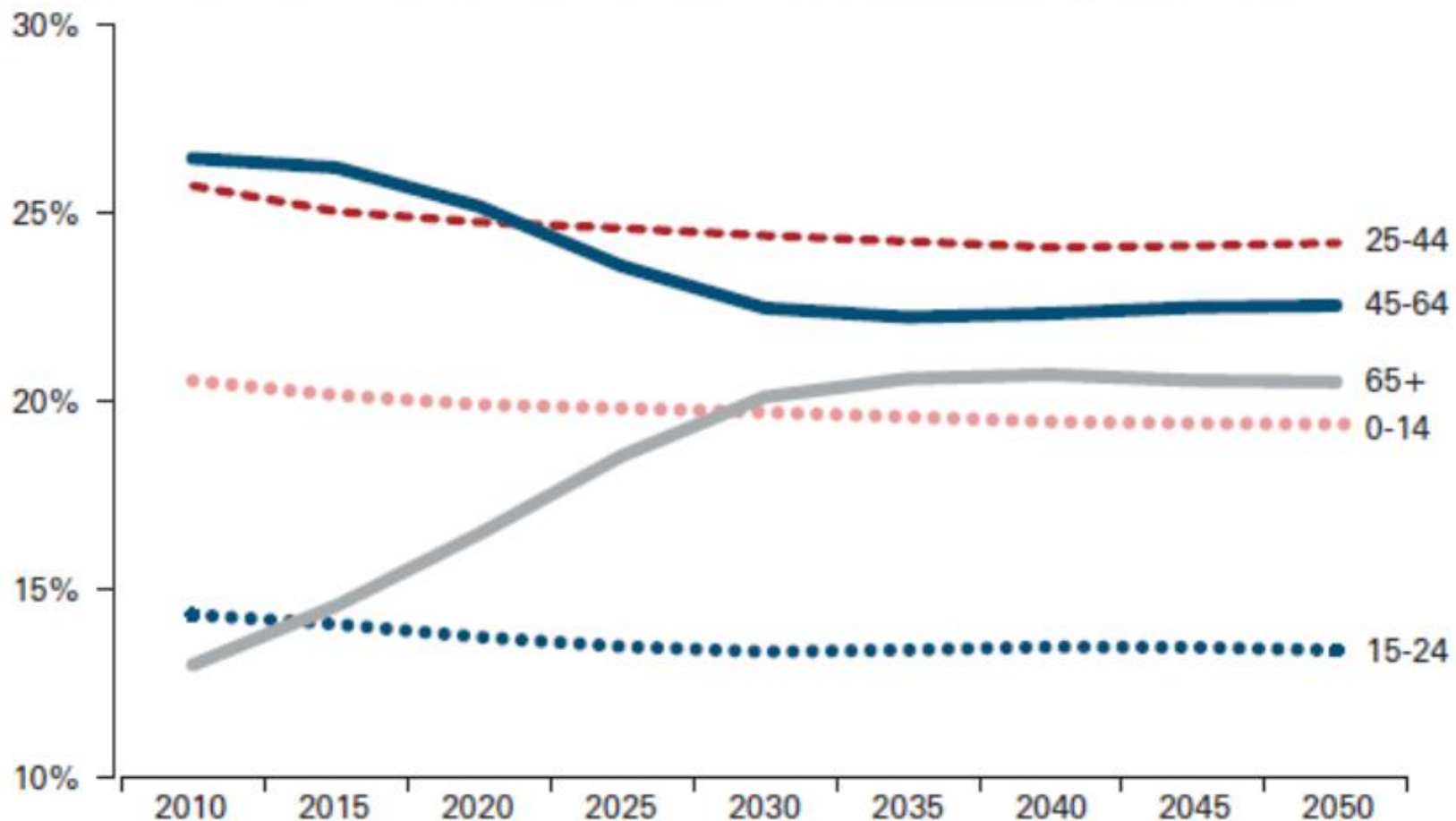
SUPPLY AND DEMAND ISSUES IN HEALTH CARE

HEALTH CARE: INCREASING DEMAND

- ▶ Population Characteristics
 - ▶ Aging
 - ▶ Rising Chronic Disease Rates
- ▶ Health Reform
 - ▶ Expanded insurance coverage



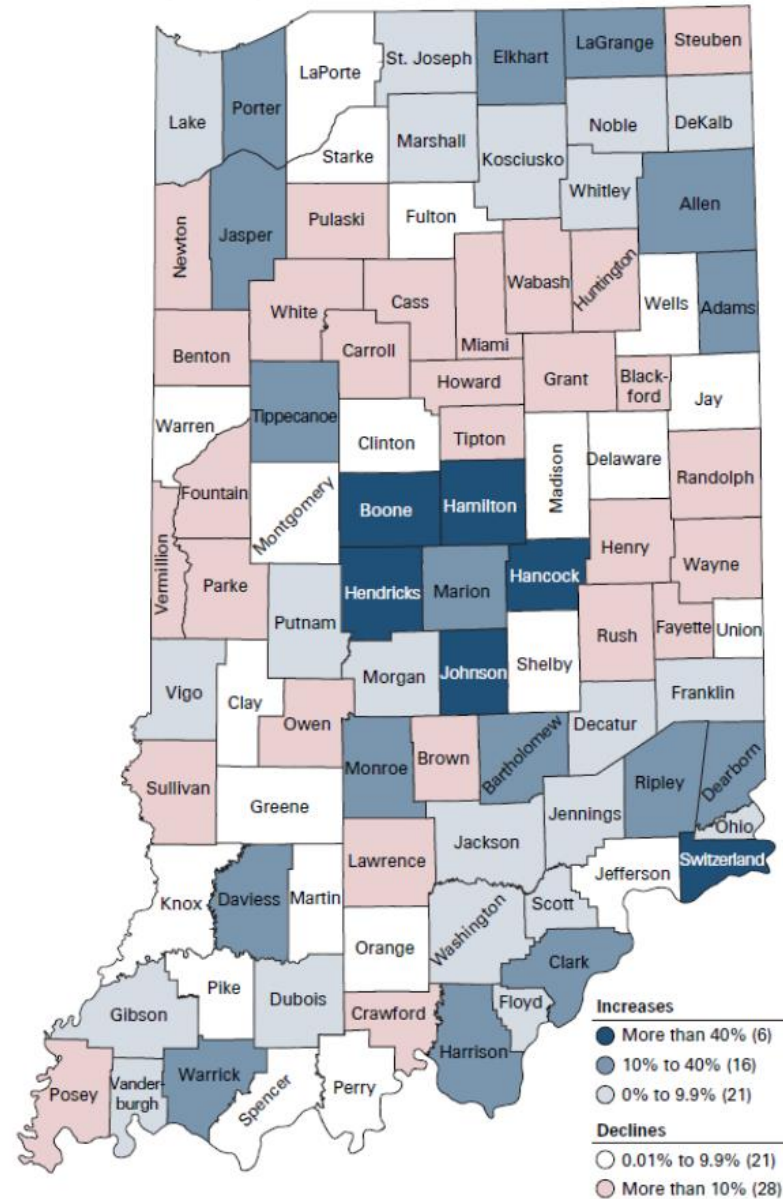
■ **FIGURE 2: Projected Share of Total Population by Age Group, 2010 to 2050**



Source: Indiana Business Research Center

Data from STATS Indiana available at:
<http://www.stats.indiana.edu/index.asp>

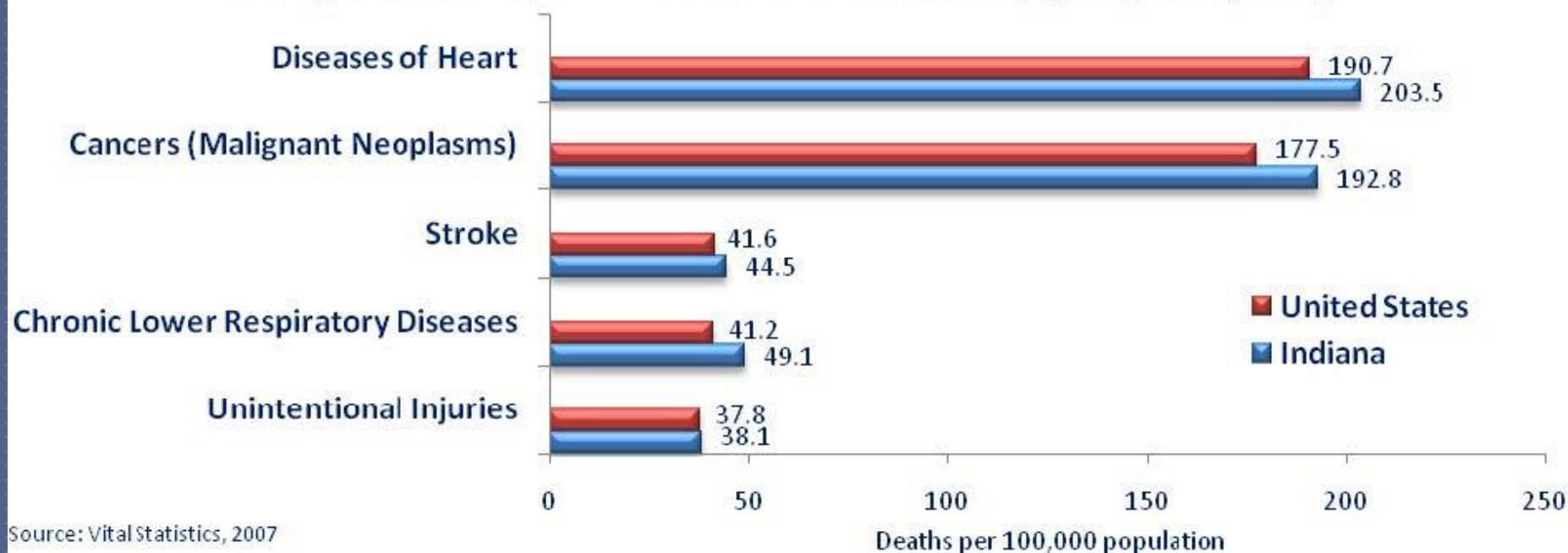
■ FIGURE 5: Projected Population Change by County, 2010 to 2050

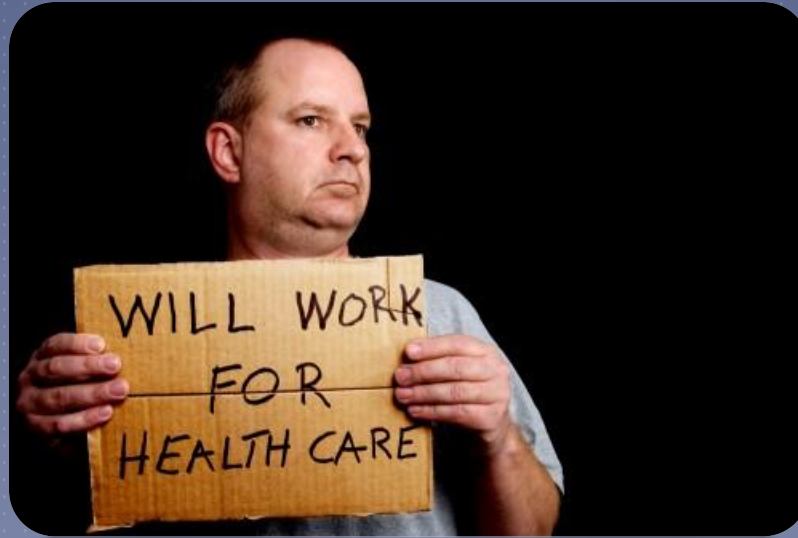


Source: Indiana Business Research Center

CHRONIC DISEASE RATES

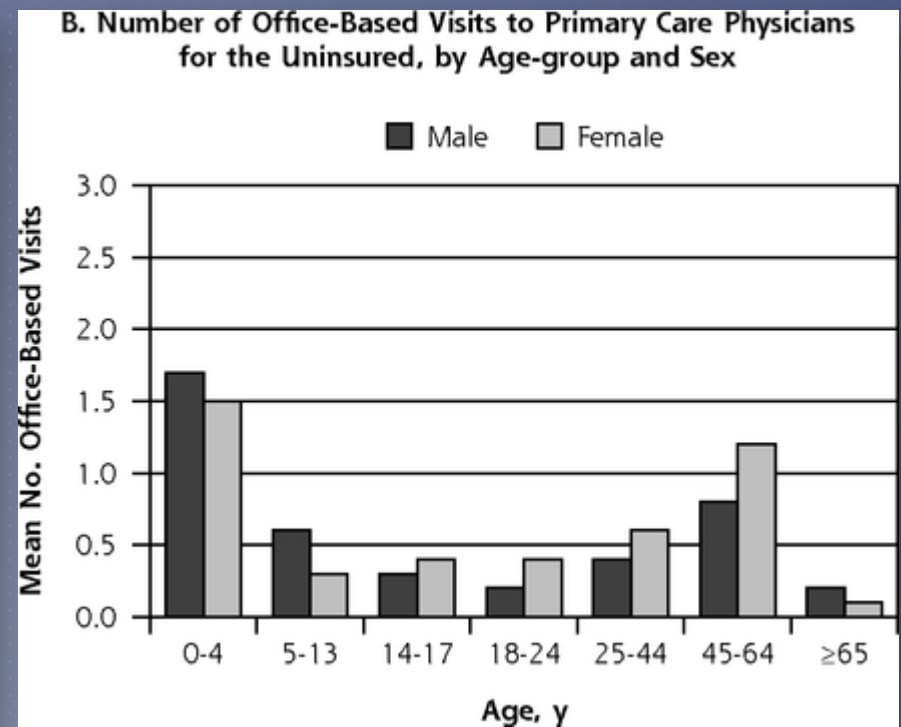
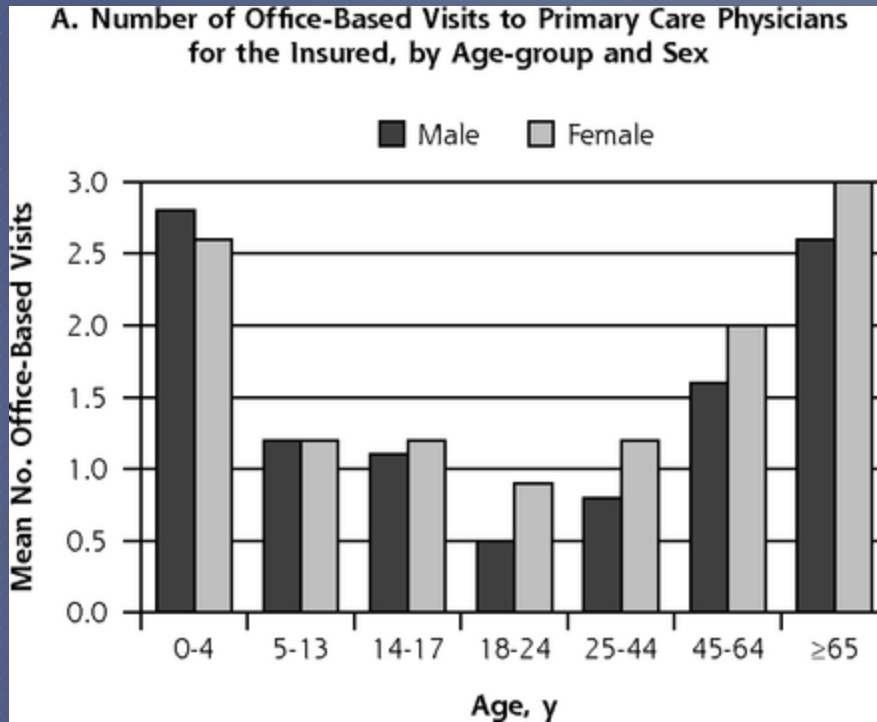
Leading Causes of Death in Indiana and United States (Age-adjusted, 2007)





HEALTH REFORM: INCREASING DEMAND

Health Reform: Doctors Visits by Health Insurance Status



HEALTH CARE: SUPPLY

HEALTH WORKFORCE SHORTAGE

- ▶ Characteristics affecting supply
 - ▶ Aging
 - ▶ Specialization
 - ▶ Incentives
 - ▶ Generational differences in practice





INDIANA'S HEALTH WORKFORCE

HEALTH WORKFORCE INFORMATION

▶ Description of data sources:

- ▶ Data for this presentation were obtained from the Statewide Health Workforce Database Project and the most recent health workforce reports produced by researchers at Indiana University (available at: <http://ahec.iupui.edu/indiana-center-for-health-workforce-studies-reports/>)

▶ Disciplines:

- ▶ Primary Care
- ▶ Oral Health
- ▶ Mental Health

PRIMARY CARE WORKFORCE

- ▶ Institute of Medicine (IOM)

Definition:

- ▶ *“the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community.”*

- ▶ Primary Care Clinicians

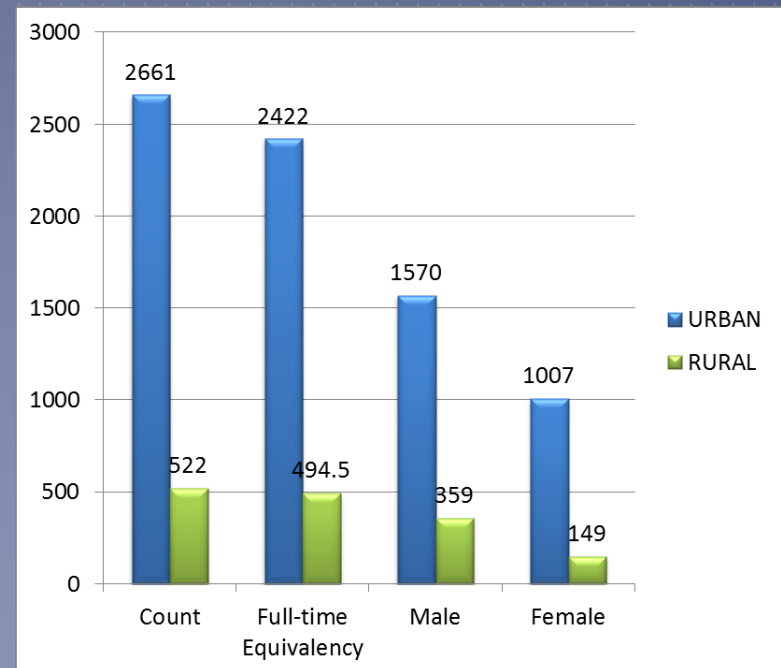
- ▶ Physicians
- ▶ Nurse Practitioners
- ▶ Physician Assistants



INDIANA PRIMARY CARE PHYSICIANS: URBAN/RURAL CHARACTERISTICS

Primary Care Physicians	URBAN		RURAL		TOTAL	MISSING
Count	2661	84%	522	16%	3183	0
Full-time Equivalency	2422	83%	494.5	17%	2915	0
Male	1570	81%	359	19%	1929	
Female	1007	87%	149	13%	1156	152
Age*	49.5	11.6	50.9	11.4	-	-

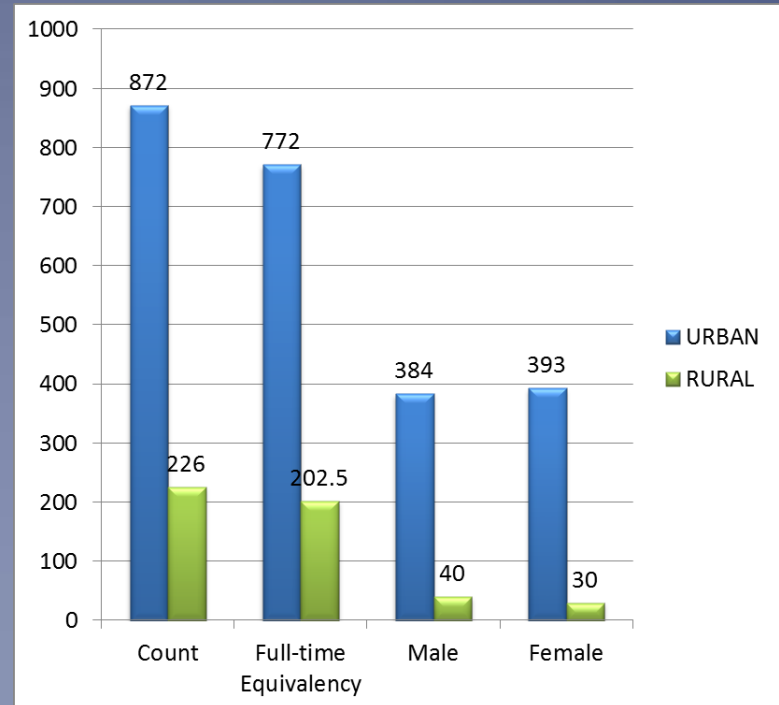
** Mean and standard deviation are reported for age*



INDIANA NURSE PRACTITIONERS: URBAN/RURAL CHARACTERISTICS

Primary Care Nurse Practitioners	URBAN		RURAL		TOTAL	MISSING
Count	872	79%	226	21%	1098	1
Full-time Equivalency	772	79%	202.5	21%	974	1
Male	384	91%	40	9%	423	
Female	393	93%	30	7%	424	252
Age*	47.2	11	46.6	10.8	-	-

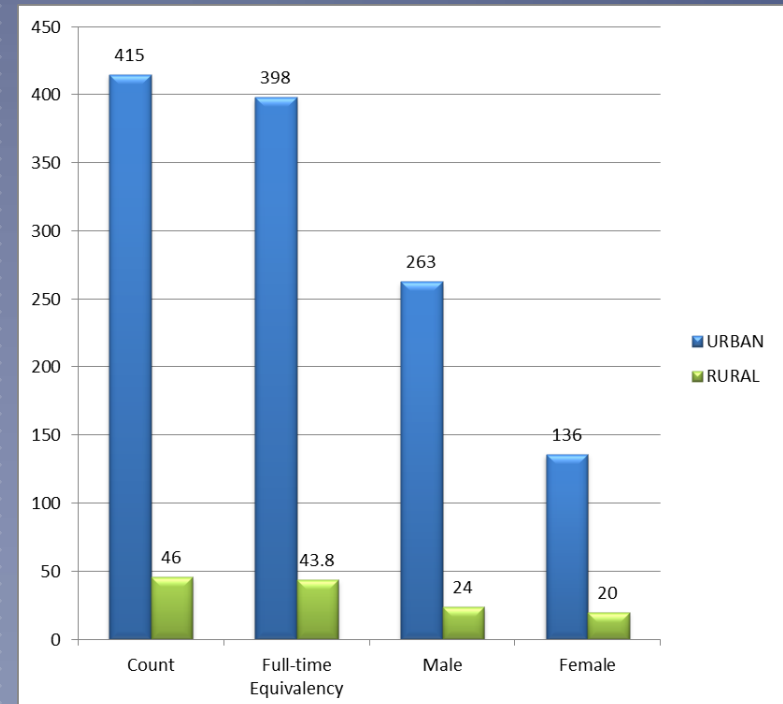
* Mean and standard deviation are reported for age



INDIANA PHYSICIAN ASSISTANTS: URBAN/RURAL CHARACTERISTICS

Primary Care Physician Assistants	URBAN		RURAL		TOTAL	MISSING
Count	415	90%	46	10%	461	0
Full-time Equivalency	398	90%	43.8	10%	442	1
Male	263	93%	24	8%	283	
Female	136	85%	20	13%	160	18
Age*	38.5	10.7	41.4	11.5	-	-

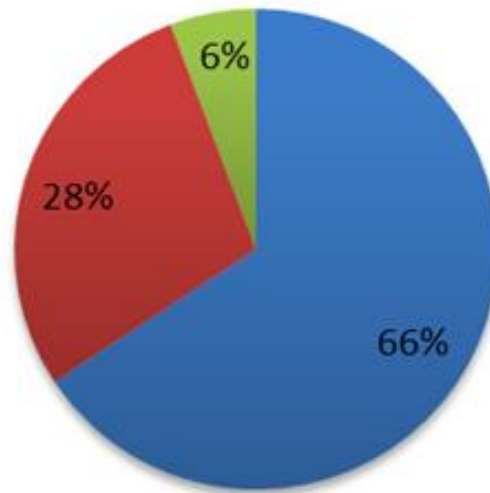
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THE MIX: PRIMARY CARE IN RURAL INDIANA

Rural Primary Care Workforce

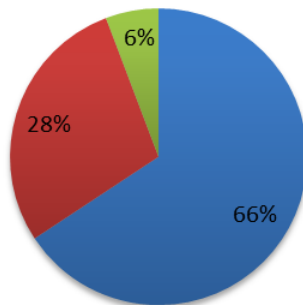
■ Physician ■ Nurse Practitioner ■ Physician Assistants



COMPARING INDIANA'S URBAN AND RURAL WORKFORCE

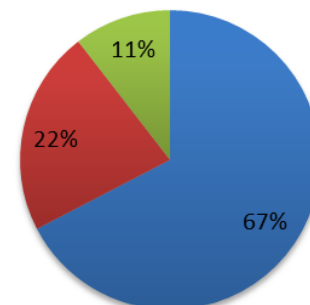
Rural Primary Care Workforce

■ Physician ■ Nurse Practitioner ■ Physician Assistants



Urban Primary Care Workforce

■ Physician ■ Nurse Practitioner ■ Physician Assistants



ORAL HEALTH WORKFORCE

- ▶ Oral health is integral to overall health

- ▶ Poor oral health contributes to:

- ▶ School performance
 - ▶ Social development
 - ▶ Employability
 - ▶ Chronic health conditions

- ▶ Oral health clinicians:

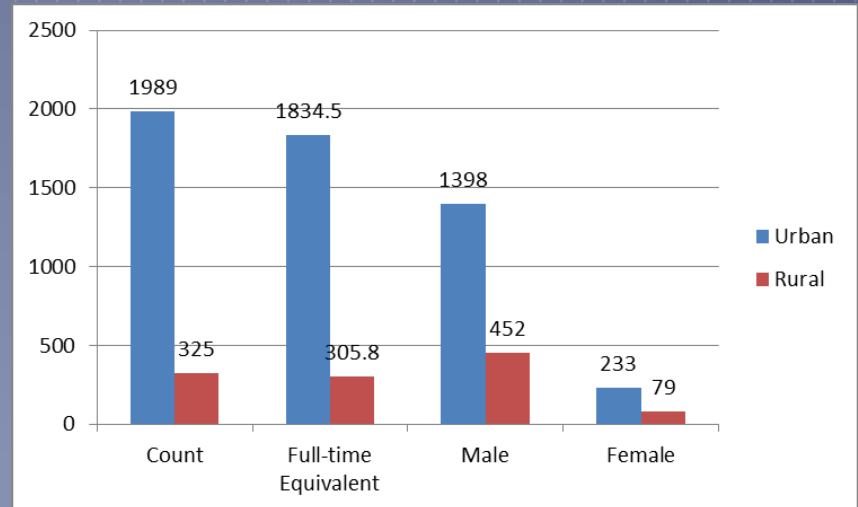
- ▶ Dentists
 - ▶ Dental Hygienists



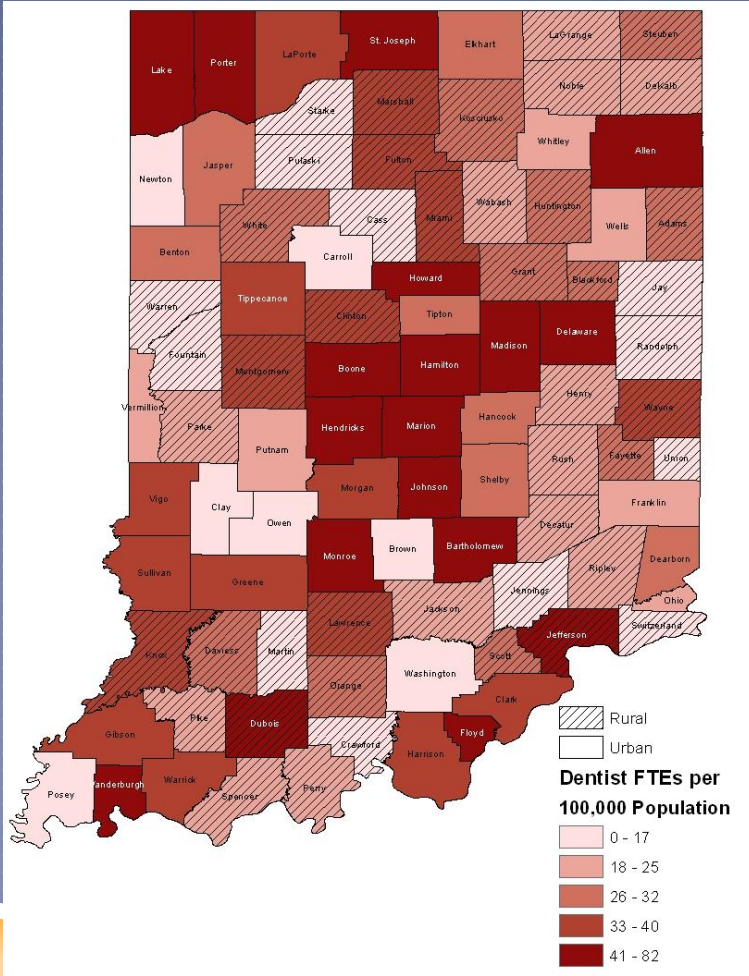
INDIANA DENTISTS: URBAN/RURAL CHARACTERISTICS

DENTISTS	URBAN		RURAL		TOTAL	MISSING
Count	1989	86%	325	14%	2314	0
Full-time Equivalency	1834.5	86%	305.8	14%	2149.3	0
Male	1398	86%	233	14%	1631	
Female	452	85%	79	15%	531	152
Age*	49	12.4	49.9	12.8	-	-

*Mean and standard deviation are reported for age



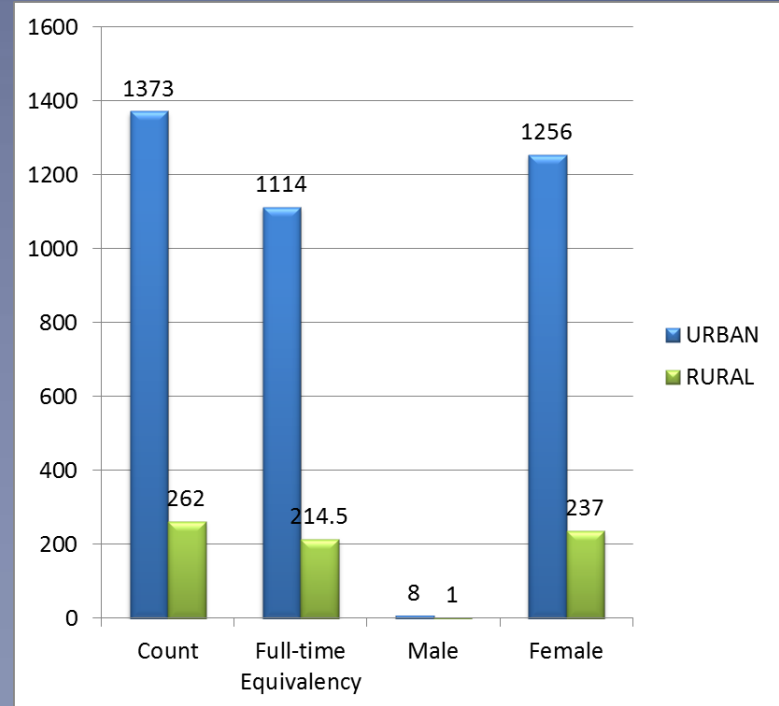
INDIANA DISTRIBUTION OF DENTIST FULL-TIME EQUIVALENCIES (FTES)



INDIANA DENTAL HYGIENISTS: URBAN/RURAL CHARACTERISTICS

Dental Hygienists	URBAN		RURAL		TOTAL	MISSING
Count	1373	84%	262	16%	1635	0
Full-time Equivalency	1114	84%	214.5	16%	1328.8	0
Male	8	89%	1	11%	9	133
Female	1256	84%	237	16%	1493	
Age*	48.2	8.4	47.6	8.8	-	-

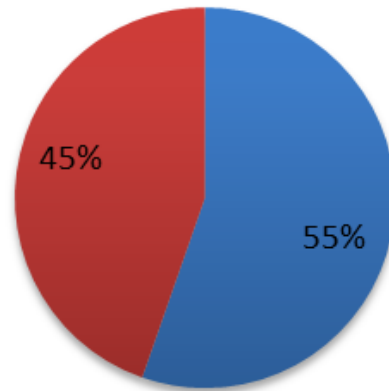
* Mean and standard deviation are reported for age



THE MIX: ORAL HEALTH IN RURAL INDIANA

Rural Oral Health Workforce

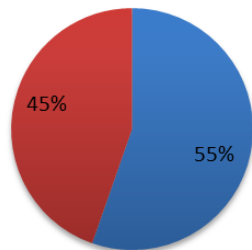
■ Dentist ■ Dental Hygienist



COMPARING INDIANA'S URBAN AND RURAL ORAL HEALTH WORKFORCE

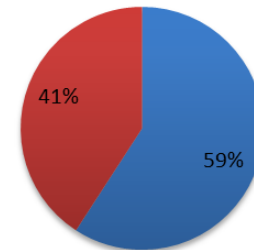
Rural Oral Health Workforce

■ Dentist ■ Dental Hygienist



Urban Oral Health Workforce

■ Dentist ■ Dental Hygienist



MENTAL HEALTH WORKFORCE

- ▶ Indiana has among the highest rates of “any” type of mental illness (21.9%)
- ▶ Mental disorders affect all aspects of life:
 - ▶ Social isolation
 - ▶ Personal well-being
 - ▶ Job performance
- ▶ Mental Health Clinicians:
 - ▶ Psychiatrists
 - ▶ Clinical Psychologists
 - ▶ Psychiatric Nurses*
 - ▶ Licensed Clinical Social Worker
 - ▶ Marriage Family Therapists
 - ▶ Mental Health Counselors

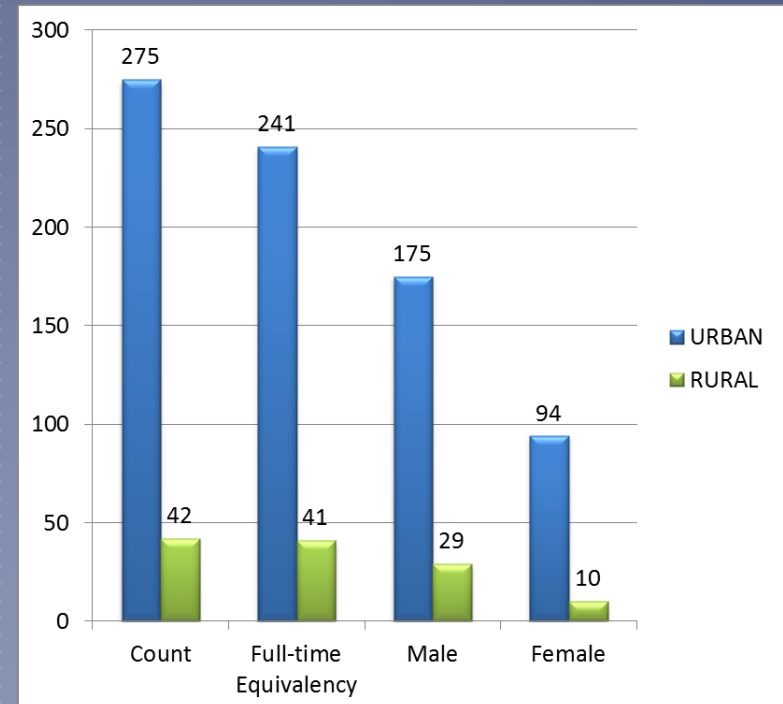
INDIANA'S MENTAL HEALTH WORKFORCE

Provider	Rural	Urban	Total
Psychiatrists	42	275	317
Psychologists	70	780	850
Licensed Social Worker	268	1893	2161
Marriage Family Therapists	44	340	384
Mental Health Counselors	273	1429	1702
Other Mental Health Workers	32	198	230
TOTAL			5644

PSYCHIATRIST: URBAN/RURAL CHARACTERISTICS

Psychiatrists	URBAN		RURAL		TOTAL	MISSING
Count	275	87%	42	13%	317	0
Full-time Equivalency	241	85%	41	15%	281.8	0
Male	175	86%	29	14%	204	
Female	94	90%	10	10%	104	9
Age*	48.2	8.4	47.6	8.8	-	-

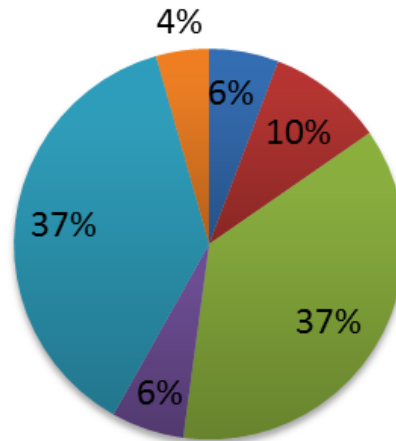
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THE MIX: RURAL INDIANA'S MENTAL HEALTH WORKFORCE

Rural Mental Health Workforce

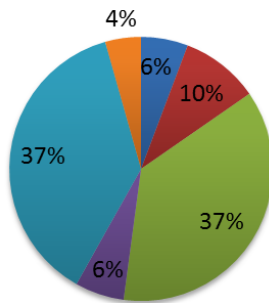
- Psychiatrists
- Licensed Social Worker
- Mental Health Counselors
- Psychologists
- Marriage Family Therapists
- Other Mental Health Workers



COMPARING INDIANA'S URBAN AND RURAL MENTAL HEALTH WORKFORCE

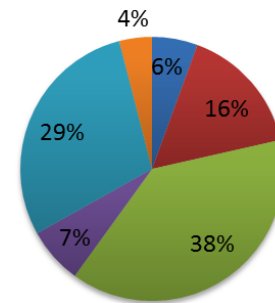
Rural Mental Health Workforce

■ Psychiatrists ■ Psychologists
■ Licensed Social Worker ■ Marriage Family Therapists
■ Mental Health Counselors ■ Other Mental Health Workers

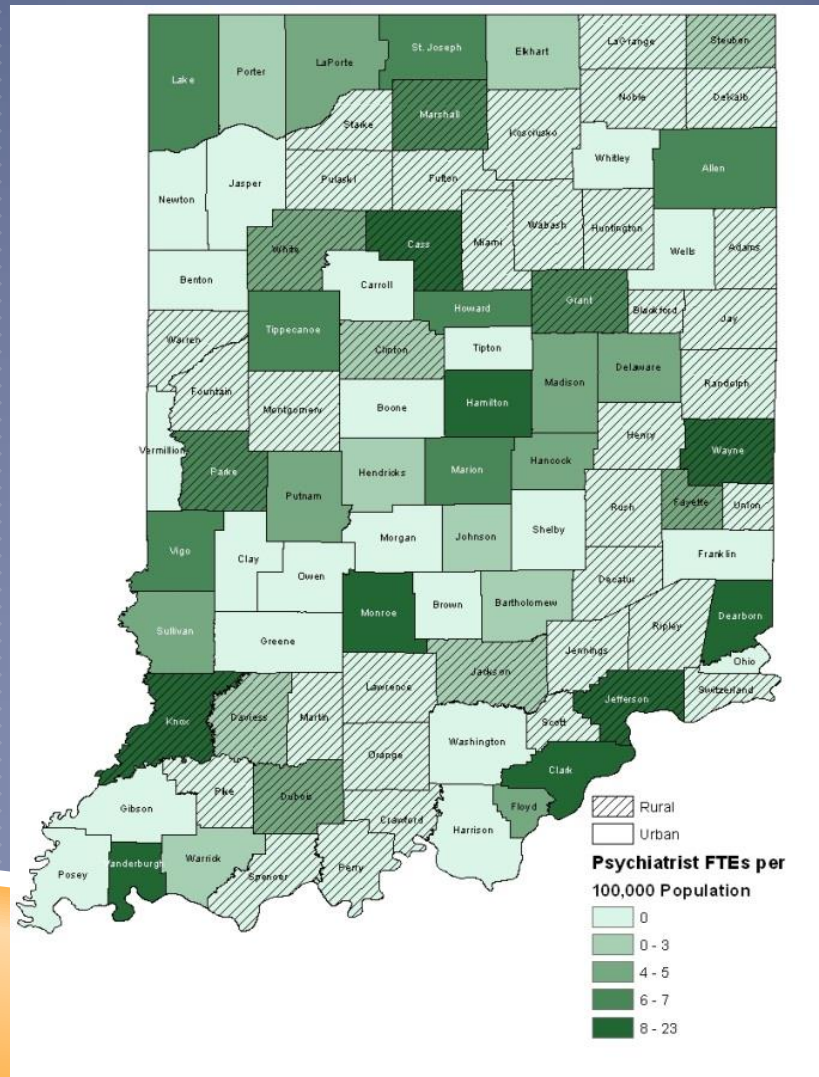


Urban Mental Health Workforce

■ Psychiatrists ■ Psychologists
■ Licensed Social Worker ■ Marriage Family Therapists
■ Mental Health Counselors ■ Other Mental Health Workers



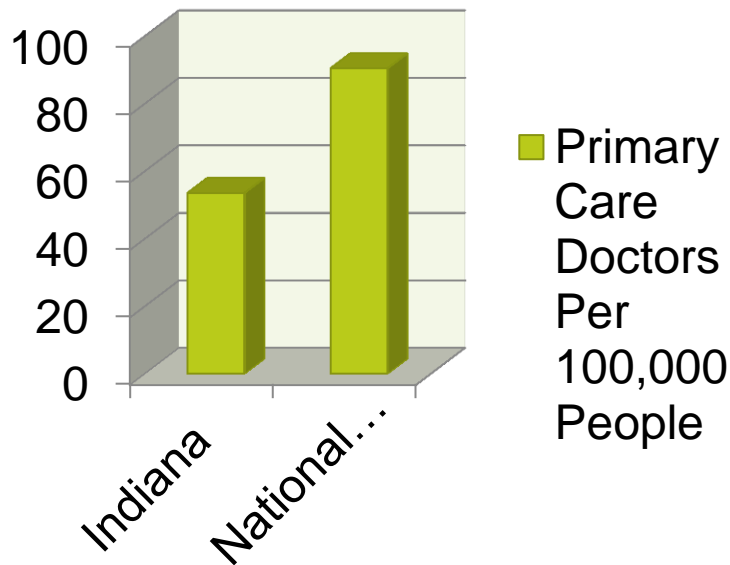
INDIANA DISTRIBUTION OF PSYCHIATRIST FULL-TIME EQUIVALENCIES (FTES)



HEALTH WORKFORCE DATA AND DECISION MAKING

DATA QUALITY: INDIANA VS. NATIONAL

**Primary Care Doctors
Per 100,000 People**



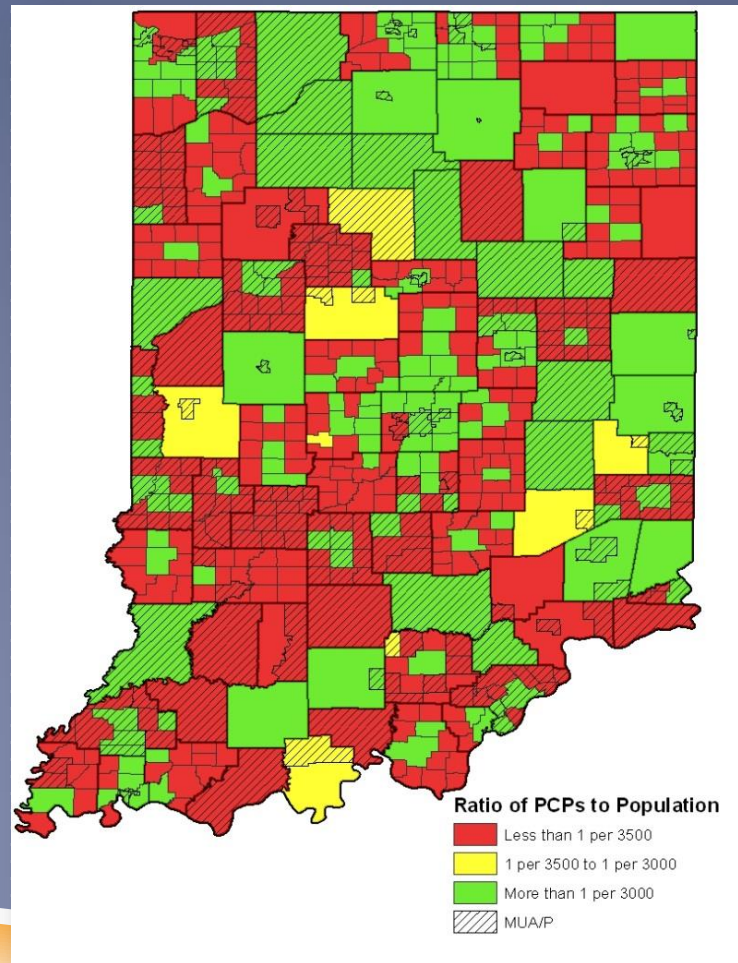
- ▶ Indiana currently has ***53.6 primary care physicians per 100,000 people****
- ▶ National average is ***90.5 primary care physicians per 100,000 people***

*National data available at:

<https://www.aamc.org/download/263512/data/statedata2011.pdf>

. Indiana state data came from the 2012 Indiana Statewide Physician Database Project

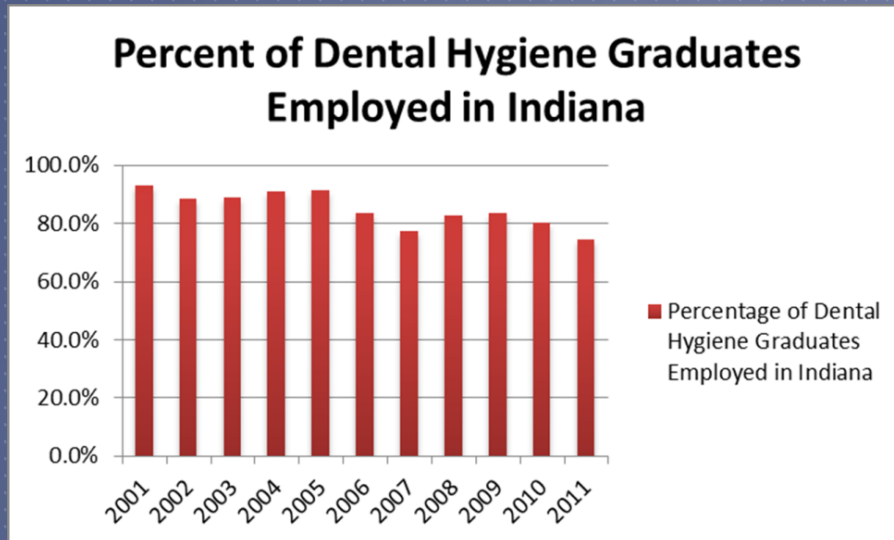
DATA AVAILABILITY: UNDERSTANDING CAPACITY AND IDENTIFYING GAPS



Map available at:

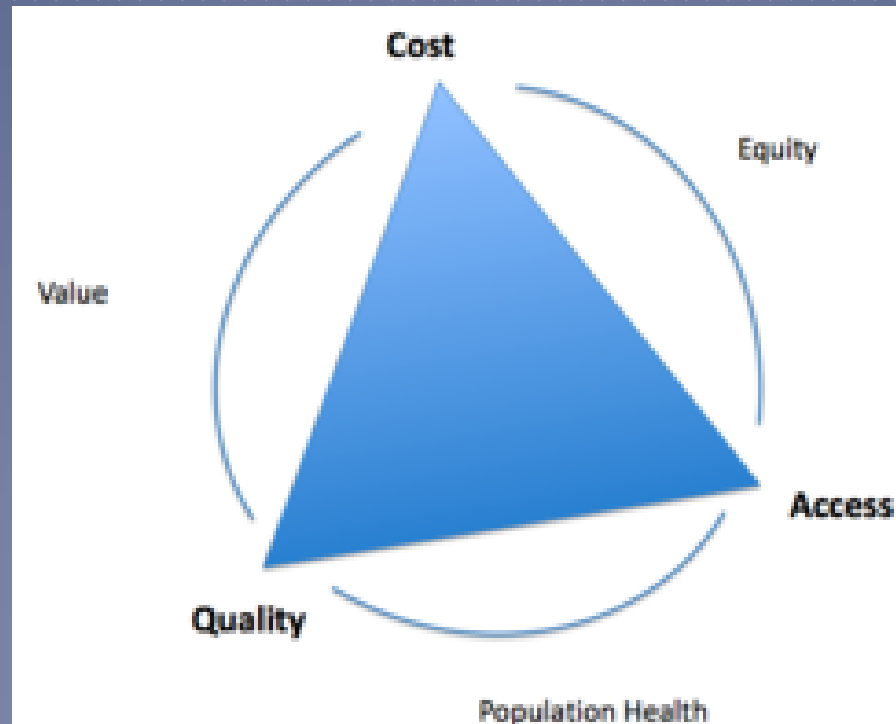
<http://www.healthpolicy.iupui.edu/PubsPDFs/Indiana%20Primary%20Health%20Care.pdf>

DATA: EVALUATING POLICY

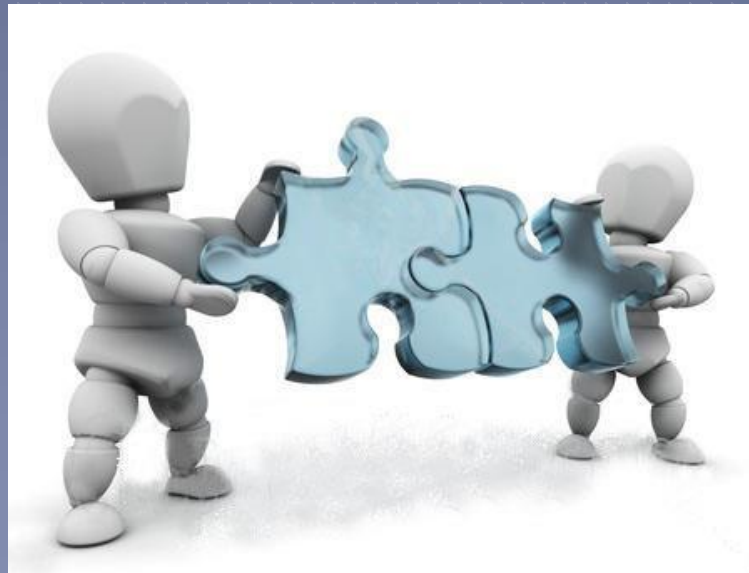


- ▶ National data reports dental hygiene as “top career”
- ▶ New training programs opened in 2008 and 2009 in Indiana
- ▶ Salaries declining steadily

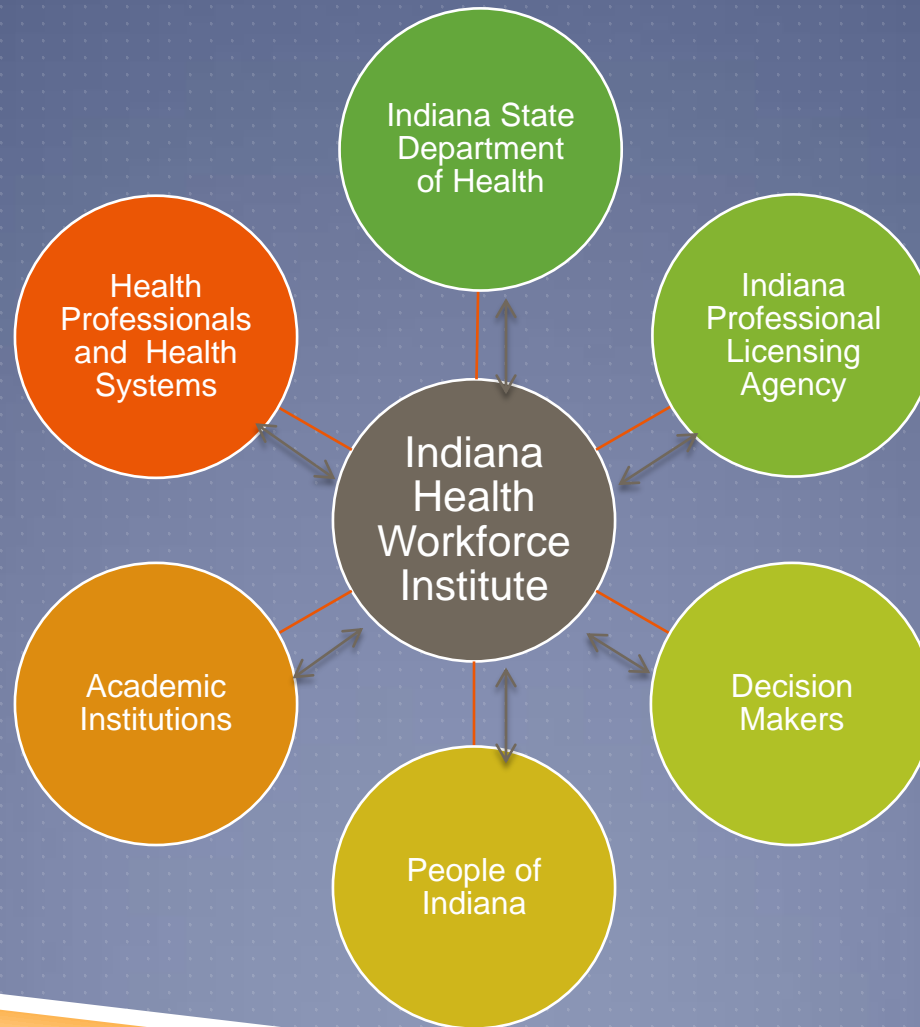
DATA: HEALTH SYSTEM EFFICIENCY



CURRENT INITIATIVE: CENTRALIZATION OF HEALTH WORKFORCE DATA



DATA INFRASTRUCTURE: A PROPOSED MODEL



WORKFORCE DATA: STAKEHOLDERS AND BENEFITS

Stakeholder	Potential Deliverables
Academic Institutions/Health Professional Training Programs	<ol style="list-style-type: none">1. Inform enrollment decisions2. Educational planning3. Guide recruitment efforts4. Graduate Tracking/Program Evaluation
Other Local and State Associations (such as- Primary Health Care., Rural Health., AHEC, Medical/Dental/Nursing/etc.)	<ol style="list-style-type: none">1. Inform decision2. Target programs/advocacy
Health System Components	<ol style="list-style-type: none">1. Needs Assessment2. Continuing Education
Legislators	<ol style="list-style-type: none">1. Real-time, comprehensive data to inform pertinent decisions

CURRENT WORKFORCE PROJECTS

- ▶ Statewide Health Workforce Database Project
- ▶ National Health Service Corps Evaluation



STATUS OF INDIANA HEALTH WORKFORCE CENTER

- ▶ Recently received support through Area Health Education Centers Network state funding line
- ▶ Deliverables
 - ▶ workforce reports
 - ▶ Others based on stakeholder needs



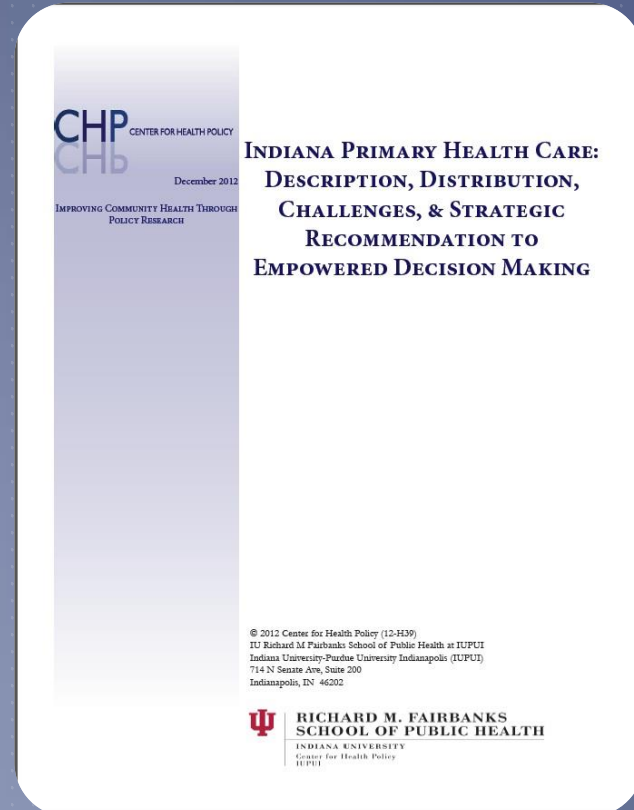
RETURN ON INVESTMENT

- ▶ Contributing to health of Hoosier constituents



INDIANA PRIMARY HEALTH CARE BRIEF

- ▶ Published December 2012 by a team of graduate students interested in Primary Care Access
- ▶ Presents data from the 2012 Indiana Statewide 2012 Physician Database, Indiana Primary Care Clinician Report, and other sources



NEXT STEPS...



- ▶ Formalize organizational plan for Health Workforce Center
- ▶ Continue to refine and publish technical reports on health workforce disciplines
- ▶ Begin producing briefs and shorter topical reports
- ▶ Explore collaboration and partnerships
- ▶ Continue to engage and get feedback from stakeholders

HAVE COMMENTS OR ADDITIONAL QUESTIONS?

- ▶ Please contact Hannah Maxey at hlmmaxey@iupui.edu for more information